Form PTO-1449 (Modified) **INFORMATION** SURE STATEMENT

U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No. 28110/36120B Serial No. 09/905,732

Applicant

Chadwick, B. et al.

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|                       | <del></del> |                    | U.S. PA  | TENT DOCUMENTS                                    |                                |  |                            | 7   |
| *Examiner<br>Initials |             | Document<br>Number | Issue<br>Date  | Name  | Class                          | Subclass   | Filing Date If Appropriate |     |
| AP                    | A1          | 4,683,195          | 07/28/87   | Mullis et al.                                     | 435                            | 6_   | -                          | 1   |
|                       | A2          | 4,946,778          | 08/07/90   | Ladner et al.                                     | 435                            | 69.6   |                            |     |
|                       | A3          | 4,965,188          | 10/23/90   | Mullis et al.                                     | 435-                           | 6-   |                            |     |
|                       | A4          | 5,202,231          | 04/13/93   | Drmanac et al.                                    | 4 <del>35-</del>               | 6  |                            |     |
|                       | A5          | 5,525,464          | 06/11/96   | Drmanac et al.                                    | 435                            | 6  |                            |     |
|                       | A6          | 4,235,871          | 11/25/80   | Papahadjopoulos et al.                            | 424                            | <del>-19</del>   |                            |     |
| -                     | A7          | 4,501,728          | 02/26/85   | Geho et al.                                       | 424                            | 38   | <del>`</del>               |     |
|                       | A8          | 4,737,323          | 04/12/88   | Martin et al.                                     | 264                            | 4.3  |                            |     |
|                       | A9          | 4,837,028          | 06/06/89   | Allen   | 424                            | 4 <del>30</del>  |                            |     |
| 1                     | A10         | 4,959,314          | 09/25/90   | Mark et al.                                       | <del>435 -</del>               | <del>69.1</del>  | _                          |     |
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| *Examiner<br>Initials |    | Document<br>Number | Publication<br>Date | Country   | Class | Subclass | Tra<br>Yes | nslation |
| NO                    | B1 | WO 90/03382        | 04/05/90            | wo        |       |          | 165        | No       |
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## INFORMATION DISCLOSURE STATEMENT

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| A                     | B3  | WO 91/09955  | 07/11/91            | wo         |       |          |      |          |
| <del> 1</del>         | B4  | WO 92/20808  | 11/26/92            | WO         |       |          |      | )        |
|                       | B5  | WO 94/12650  | 06/09/94            | wo         |       |          |      |          |
|                       | В6  | WO 95/09248  | 04/06/95            | wo         |       |          |      | 1        |
|                       | В7  | WO 96/30532  | 10/03/96            | wo         |       |          |      |          |
|                       | B8  | WO 96/32471  | 10/17/96            | wo         |       |          |      |          |
|                       | В9  | 2148851  | 10/11/96            | CA         |       |          |      |          |
| $\overline{V}$        | B10 | WO 00/04041  | 1/27/00             | WO         |       |          |      |          |

|    |    | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)  |
|----|----|---|
| DY | C1 | Hicks-Berger, C.A. et al., "Expression and Characterization of Soluble and Membrane-bound Human Nucleoside Triphosphate Diphosphohydrolase 6 (CD39L2)," <i>J. Biol. Chem.</i> , 275(44):34041-34045 (2000). |
|    | C2 | Chadwick, B.P. et al., "Cloning and Mapping of a Human and Mouse Gene with Homology to Ecto-ATPase Genes," <i>Mammalian Genome</i> , 8:668-672(1997).   |
|    | C3 | Chadwick, B.P. et al. "cDNA Cloning and Chromosomal Mapping of a Mouse Gene with Homology to NTPases," Mammalian Genome, 9:162-164 (1998).  |

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**DATE CONSIDERED** 

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## INFORMATION DISCLOSURE STATEMENT

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|---|------------|-----------|---|
| - | BADEMA     | K UK LIEF | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)  |
|   | <i>β</i> η | C4        | Chadwick B.P. et al., "The CD39-like Gene Family: Identification of Three New Human Members (CD36L2, CD39L3, and CD39L4), Their Murine Homologues, and a Member of the Gene Family from <i>Drosophila melanogaster</i> ," Genomics, 50:357-367(1998). |
|   |            | C5        | Smith, T.M et al., "Cloning, Sequencing, and Expression of a Human Brain Ecto-Apyrase Related to Both the Ecto-ATPases and CD39 Ecto-Apyrases," <i>Biochim. Biophys Acta</i> , 1386:65-78 (1998).   |
|   |            | C7        | Adelman, J. P. et al., "In Vitro Deletional Mutagenesis for Bacterial Production of the 20,000-Dalton Form of Human Pituitary Growth Hormone," DNA, 2(3):183-193 (1983).  |
|   |            | C6        | Mulero, J.J. et al., "CD39-L4 Is a Secreted Human Apyrase, Specific for Hydrolysis of Nucleoside Disphosphates," J. Biol. Chem., 274(29): 20064-20067(1999).  |
|   |            | C8        | Altschul, S.F. et al., "Basic Local Alignment Search Tool," J. Mol. Biol., 215:403-410 (1990).  |
|   |            | C9        | Altschul, S.F., "A Protein Alignment Scoring System Sensitive at All Evolutionary Distances," J. Mol. Evol., 36:290-300 (1993).   |
|   |            | C10       | Anderson, W.F., "Human Gene Therapy," Nature (Supp.), 392:25-30 (1998).   |
|   |            | C11       | Asseline, U. et al., "Nucleic Acid-Binding Molecules with High Affinity and Base Sequence Specificity: Intercalating Agents Covalently Linked to Oligodeoxynucleotides," Proc. Natl. Acad. Sci., USA, 81: 3297-3301 (1984).                           |
|   |            | C12       | Bayer, E.A. et al., "The Avidin-Biotin Complex in Affinity Cytochemistry," Meth. Enzym., 62:308-315 (1979).   |
|   |            | C13       | Beal, P.A. et al., "Second Structural Motif for Recognition of DNA by Oligonucleotide-Directed Triple-Helix Formation," Science, 251:1360-1363 (1991).  |
|   |            | C14       | Bonaldo, M. et al., "Normalization and Subtraction: Two Approaches to Facilitate Gene Discovery," Genome Res., 6:791-806 (1996).  |
| A | /          | C15       | Boorstein et al., "Primer Extension Analysis of RNA," Methods Enzymol., 180:347-369 (1989).   |

| EXAMINER DATE | E CONSIDERED |
|---------------|--------------|
|---------------|--------------|

Form PTO-1449 (Modified)

U.S. Department of Commerce Patent and Trademark Office

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INFORMATION DISCLOSURE STATEMENT

Use several sheets if necessary)

Chadwick, B. et al.

Filing Date
July 13, 2001 1644

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) C16 Breslauer, K.J. et al., "Predicting DNA Duplex Stability from the Base Sequence," Proc. Natl. Acad. Sci., USA, 83: 3746-3750 (1986). C17 Broude, N.E. et al., "Enhanced DNA Sequencing by Hybridization," Proc. Natl. Acad. Sci., USA, 91: 3072-3076 (1994). C18 Brumbaugh, J.A. et al, "Continuous, On-line DNA Sequencing Using Oligonucleotide Primers with Multiple Fluorophores," Proc. Natl. Acad. Sci., USA, 85:5610-5614 (1988).C19 Burnstock, G., "The Past, Present and Future of Purine Nucleotides as Signalling Molecules," Neuropharmacology, 36:1127-1139 (1997). C20 Cate, R.L. et al. "Genomic Southern Analysis with Alkaline-Phosphatase-Conjugated Oligonucleotide Probes and the Chemiluminescent Substrate AMPPD," Genet. Anal. Tech. Appl., 8(3):102-106 (1991). C21 Cole, S.P.C. et al., "The EBV-Hybridoma Technique and It's Application to Human Lung Cancer," Monoclonal Antibodies and Cancer Therapy, Alan R. Liss, Inc., pp. 77-96 (1985). C22 Communi, D. et al., "Cloning, Functional Expression and Tissue Distribution of the Human P2Y<sub>6</sub> Receptor," Biochem. Biophys. Res. Com., 222::303-308 (1996). Cooney, M. et al., "Site-Specific Oligonucleotide Binding Represses Transcription of C23 the Human c-myc Gene in Vitro," Science, 15241:456-459 (1988). C24 Craig, M.E. et al., "Relaxation Kinetics of Dimer Formation by Self Complementary Oligonucleotides," J. Mol. Biol., 62:383-401 (1971). Dahlén et al., "Sensitive Detection of Genes by Sandwich Hybridization and Time-C25 Resolved Fluorometry," Mol. Cell. Probes (England), 1:159-168 (1987). C26 Daly, J. et al., "Direct Method for Determining Inorganic Phosphate in Serum with the "CentrifiChem", Clin. Chem., 18:263-265 (1972). C27 Dolinnaya, N.G. et al., "Site-directed Modification of DNA Duplexes by Chemical Ligation," Nucleic Acids Research, (England), 16(9):3721-3738 (1988). C28 Dolinnaya, N.G. et al., "The use of BrCN for assembling modified DNA duplexes and DNA-RNA hybrids; comparison with water-soluble carbodiimide,"

| EXAMINER Com De Come | DATE CONSIDERED |
|----------------------|-----------------|
|                      |                 |

Nucleic Acids Res. (ENGLAND), 19(11):3067-72 (1991).

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. Department of Commerce Patent and Trademark Office Atty. Docket No. Serial 28110/36120B 09/9

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|           |       | mark.   |
|-----------|-------|---|
|           | Siven | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)  |
| Ay        | C29   | Drmanac, R. et al., "A calculation of fragment lengths from human DNA with 78 restriction enzymes: an aid for cloning and mapping," <i>Nucleic Acids Research</i> , 14(11): 4691-4692 (1986).   |
|           | C30   | Drmanac, R et al., "Sequencing of Megabase Plus DNA by Hybridization: Theory of the Method, Genomics, 4:114-128 (1989).   |
|           | C31   | Drmanac, R. et al., "Reliable Hybridization of Oligonucleotides as Short as Six Nucleotides," DNA Cell Biol., 9:527-534 (1990).   |
|           | C32   | Drmanac, R. et al., "An Algorithm for the DNA Sequence Generation from k-Tuple Word Contents of the Minimal Number of Random Fragments," J. Biomol. Struct. Syn., 8(5):1085-1102 (1991).  |
|           | C33   | Drmanac, R. et al., "Sequencing By Oligonucleotide Hybridization: A Promising Framework in Decoding of the Genome Program?" Proceedings of the First International Conference Electrophoresis Supercomputing Human Genome, Cantor et al., (Eds.), World Scientific Publishing Co., Singapore, pp. 47-59 (1991). |
|           | C34   | Drmanac, R. et al., "W (A or T) Sequences as Probes and Primers Suitable for Genomic Mapping and Fingerprinting," <i>Nucleic Acids Research</i> , 19(21):5839-5842 (1991).  |
|           | C35   | Drmanac, R. et al., "DNA Sequence Determination by Hybridization: A Strategy for Efficient Large-Scale Sequencing," Science, 260(5114):1649-1652 (1993).  |
|           | C36   | Drmanac, S. et al., "Processing of cDNA and Genomic Kilobase-Size Clones for Massive Screening, Mapping and Sequencing by Hybridization," <i>Biotechniques</i> , 17:328-329, 332-336 (1994).  |
|           | C37   | Dubyak, G. R. et al., "Signal Transduction via P <sub>2</sub> -Purinergic Receptors for Extrecellular ATP and Other Nucleotides," Am. J. Physiol. 34:C577-C606 (1993).  |
|           | C38   | Duncan, C.H. et al., "Affinity Chromatography of a Sequence-Specific DNA Binding Protein using Teflon-linked Oligonucleotides," <i>Anal. Biochem.</i> , 169:104-108 (1988).   |
|           | C39   | Engval, E. et al., "Enzyme-Linked Immunosorbent Assay, ELISA III. Quantitation of Specific Antibodies by Enzyme-Labeled Anti-Immunoglobulin in Antigen-Coated Tubes, <i>Immunol.</i> , 109:129-135 (1972).  |
| $\bigvee$ | C40   | Fischer Y. et al., "Purinergic Inhibition of Glucose Transport in Cardiomyocytes," J. Biol. Chem., 274:755-761 (1999).  |

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Chadwick, B. et al.

Filing Date July 13, 2001 Group 1644

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

| Pro m     | DEMAR | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)   |
|-----------|-------|--|
| D         | C41   | Friedmann, T., "Progress Toward Human Gene Therapy," Science, 244: 1275-1281 (1989).   |
| -         | C42   | Gayle III, R.B. et al., "Inhibition of Platelet Function by Recombinant Soluble Ecto-ADPase/CD39," J. Clinical Investigation, 101(9):1851-1859 (1998).   |
|           | C43   | Gluzman, Y., "SV40-Transformed Simian Cells Support the Replication of Early SV40 Mutants," <i>Cell</i> , 23:175-182 (1981).   |
|           | C44   | Goding, J.W., "Conjugation of Antibodies with Fluorochromes: Modifications to the Standard Methods," <i>J. Immunol. Meth.</i> , 13: 215-226 (1976).  |
|           | C45   | Gouttefangeas, C. et al., "The CD39 Molecule Defines Distinct Cytotoxic Subsets within Alloactivated Human CD8-Positive Cells," Eur. J. Immunol., 22:2681-2685 (1992).   |
|           | C46   | Hillenkamp, F. et al., "Matrix Assisted UV-Laser Desorption/Ionization: A New Approach to Mass Spectrometry of Large Biomolecules," in: Biological Mass Spectrometry, Burlingame et al., (eds.), Elsvier Science Pub., Amsterdam, p. 49-60 (1990). |
|           | C47   | Hoheisel <i>et al.</i> , "Quantitative Measurements on the Duplex Stability of 2,6-Diaminopurine and 5-Chloro-Uracil Nucleotides using Enzymatically Synthesized Oligomers," <i>FEBS Lett</i> , 274:103-106 (1990).                                |
|           | C48   | Hurby et al., "Application of Synthetic Peptides: Antisense Peptides," In Synthetic Peptides, A User's Guide, W.H. Freeman, NY, pp. 289-307 (1992).  |
|           | C49   | Huth-Fehre, T. et al., "Matrix Assisted Laser Desorption Mass Spectrometry of Oligodeoxythymidylic Acids," Rapid Comm. Mass Spect., 6:209-213 (1992).  |
|           | C50   | Ikuta, S. et al., "Dissociation Kinetics of 19 Base Paired Oligonucleotide-DNA Duplexes Containing Different Single Mismatched Base Pairs," <i>Nucleic Acids Research</i> 15:797-811 (1987).   |
|           | C51   | Inouye, S. et al., "Microplate Hybridization of Amplified Viral DNA Segment," J. Clin. Microbiol., 28:1469-1472 (1990).  |
| $\sqrt{}$ | C52   | Kaczmarek, E. et al., "Identification and Characterization of CD39/Vascular ATP Diphosphohydrolase," J. Biol. Chem., 271:33116-33122 (1996).   |

DATE CONSIDERED ( - 6 -0 3

U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No. 28110/36120B

Serial No. 09/905,732

INFORMATION DISCLOSURE STATEMENT

Chadwick, B. et al.

Filing Date July 13, 2001 Group 1644

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| 13 |          | <u></u>   |
|----|----------|---|
| V  | A MANER! | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)  |
| DP | C53      | Kansas, G. S. et al., "Expression, Distribution, and Biochemistry of Human CD39 Role in Activation-Associated Homotypic Adhesion of Lymphocytes," J. Immunol., 146:2235-2244 (1991).  |
|    | C54      | Kasprzak, A. et al., "Location of a Contact Site between Actin and Myosin in the Three-Dimensional Structure of the Acto-S1 Complex," <i>Biochemistry</i> , 28:9230-9238 (1989).  |
|    | C55      | Kirley, T.L., "Complementary DNA Cloning and Sequencing of the Chicken Muscle Ecto-ATPase," J. Biol. Chem., 272:1076-1081 (1997).   |
|    | C56      | Kohler, G. et al., "Continuous Cultures of Fused Cells Secreting Antibody of Predefined Specificity," Nature, 256:495-497 (1975).   |
|    | C57      | Kozbor, D. et al., "The Production of Monoclonal Antibodies from Human Lymphocytes," <i>Immunology Today</i> , 4:72-79 (1983).  |
|    | C58      | Lamture, J., "Direct Detection of Nucleic Acid Hybridization on the Surface of a Charge Coupled Device," <i>Nucleic Acids Research</i> , 22:2121-2125 (1994).   |
|    | C59      | Landegren, U. et al., "A Ligase-Mediated Gene Detection Technique," Science, 241:1077-1080 (1988).  |
|    | C60      | Lee, J.S. et al., "Complexes formed by (pyrimidine) <sub>n</sub> (purine) <sub>n</sub> DNAs on lowering the pH are three-stranded," <i>Nucl. Acids Res.</i> , 6:3073-3091 (1979).   |
|    | C61      | Lehrach, H. et al., "Hybridization Fingerprinting in Genome Mapping and Sequencing," in: Genome Analysis Volume 1: Genetic and Physical Mapping, Cold Spring Harbor Laboratory Press, pp.39-81 (1990).                            |
|    | C62      | Lutz, Y. et al., "The Distribution of Two hnRNP-Associated Proteins Defined by a Monoclonal Antibody Is Altered in Heat-Shocked HeLa Cells," Exp. Cell Research., 175:109-124 (1988).   |
|    | C63      | Makita, K. et al., "Placental ecto-ATP diphosphohydrolase: its structural feature distinct from CD39, localization and inhibition on shear-induced platelet aggregation," <i>International J. Hematology</i> , 68:297-310 (1998). |
| 1  | C64      | Maliszewski, C. R. et al., "The CD39 Lymphoid Cell Activation Antigen," J. Immunology, 153:3574-3583 (1994).  |

**EXAMINER** 

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DATE CONSIDERED 1-6-03

U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No. 28110/36120B Serial No. 09/905,732

INFORMATION DISCLOSURE STATEMENT

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Applicant Chadwick, B. et al.

Filing Date July 13, 2001 Group 1644

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|----|----------|--|
|    | AMADEM   | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)   |
| ₽0 | C65      | Marcus, A.J. et al., "The Endothelial Cell Ecto-ADPase Responsible for Inhibition of Platelet Function is CD39," J. Clinical Investigation, 99(6): 1351-1360 (1997).                                       |
|    | C66      | Miller, A.D., "Human Gene Therapy Comes of Age," Nature, 357: 455-460 (1992).  |
|    | C67      | Morrisey, D. et al., "Nucleic Acid Hybridization Assays Employing dA-Tailed Capture Probes. I. Single Capture Methods," Mol. Cell. Probes, 2:189-207 (1989).   |
|    | C68      | Murakami, A. et al., "Fluorescent-Labeled Oligonucleotide Probes: Detection of Hybrid Formation in Solution by Fluorescence Polarization Spectroscopy," Nucleic Acids Res., (ENGLAND), 19:4097-102 (1991). |
|    | C69      | Nagata, Y. et al., "Quantification of Picogram Levels of Specific DNA Immobilized in Microtiter Wells," FEBS Lett (NETHERLANDS), 183: 379-382 (1985).  |
|    | C70      | Neumann, P.E. et al., "Mapping of Two Genes that Influence Susceptibility to Audiogenic Seizures in Crosses of C57BL/6J and DBA/2J Mice," Behavior Genetics, 20:307-323 (1990).                            |
| ·  | C71      | Nichols, R. et al. "A Universal Nucleoside for Use at Ambiguous Sites in DNA Primers," Nature, 369:492-493 (1994).   |
|    | C72      | Nizetic, D. et al., "An Improved Bacterial Colony Lysis Procedure Enables Direct DNA Hybridisation Using Short (10, 11 bases) Oligonucleotides to Cosmids," <i>Nucleic Acids Research</i> , 19:182 (1991). |
|    | C73      | Okano, H. et al., "Myelin Basic Protein Gene and the Function of Antisense RNA in Its Repression in Myelin-Deficient Mutant Mouse," J. Neurochem., 56:560-567 (1991).                                      |
|    | C74      | Ottman, R. et al., "Localization of a Gene for Partial Epilepsy to Chromosome 10q," Nature Genet., 10:56-60 (1995).  |
|    | C75      | Paterson, B.M. et al., "Structural Gene Identification and Mapping by DNA-mRNA Hybrid-Arrested Cell-Free Translation," Proc. Natl. Acad. Sci., 74:4370-4374 (1977).  |
|    | C76      | Paunesku, T. <i>et al.</i> , "Origin of Rat β-Globin Haplotypes Containing Three and Five Genes," <i>Mol. Biol. Evol.</i> , 7:407-422 (1990).  |
|    | C77      | Pease, A.C. et al., "Light-generated Oligonucleotide Arrays for Rapid DNA Sequence Analysis," Proc. Natl. Acad. Sci., USA, 91:5022-5026 (1994).  |

**EXAMINER** 

DATE CONSIDERED

U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No. 28110/36120B

Serial No. 09/905,732

INFORMATION DISCLOSURE STATEMENT

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| //             | 3 <sub>2</sub> | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)  |
| ØP.            | 7Anew A        | Pevzner, P.A., "1-Tuple DNA Sequencing: Computer Analysis," J. Biomol. Sruct. & Dyn., 7(1):63-73 (1989).  |
|                | C79            | Pontius, B.W. et al., "Rapid Renaturation of Complementary DNA Strands Mediated by Cationic Detergents: A Role for High-Probability Binding Domains in Enhancing the Kinetics of Molecular Assembly Processes," Proc. Natl. Acad. Sci., USA, 88:8237-8241 (1991). |
|                | C80            | Pörshke, D. et al., "Co-operative Non-enzymic Base Recognition," J. Mol. Biol., 62:361-381 (1971).  |
|                | C81            | Rasmussen, S.R. <i>et al.</i> , "Covalent Immobilization of DNA onto Polystyrene Microwells: The Molecules Are Only Bound at the 5' End," <i>Anal. Biochem.</i> , 198:138-142 (1991).   |
|                | C82            | Rowe, M. et al., "Monoclonal Antibodies to Epstein-Barr Virus-Induced, Transformation-Associated Cell Surface Antigens: Binding Patterns and Effect Upon Virus-Specific T-Cell Cytotoxicity," Int. J. Cancer, 29:373-381 (1982).                                  |
|                | C83            | Sambrook, J. et al., In: Molecular Cloning A Laboratory Manual, 2nd Ed., Cold Springs Harbor Press, pp. 9.14-9.28 (1989).   |
|                | C84            | Schoenborn, M.A. et al., "Gene Structure and Chromosome Location of Mouse Cd39 Coding for an Ecto-Apyrase," Cytogenetics & Cell Genetics, 81:287-289 (1998).  |
|                | C85            | Schriefer, L.A. et al., "Low Pressure DNA Shearing: A Method for Random DNA Sequence Analysis," Nucleic Acids Res. (ENGLAND), 18 (24):7455-6 (1990).  |
|                | C86            | Schubert, F. et al., "One-step Labelling of Oligonucleotides with Fluoresceine During Automated Synthesis," Nucleic Acids Res. (ENGLAND), 18:3427 (1990).   |
|                | C87            | Schulman E. S. et al., "ATP Modulates Anti-IgE-Induced Release of Histamine from Human Lung Mast Cells," Am. J. Respir. Cell Mol. Biol., 20:530-537 (1999).   |
|                | C88            | Seyfried, T.N. et al., "Genetic Linkage Between the AH Locus and a Major Gene that Inhibits Susceptibility to Audiogenic Seizures in Mice," Genetics, 99:117-126 (1981).  |
|                | C89            | Skobel, E. et al., "Relation Between Enzyme Release and Irreversible Cell Injury of the Heart under the Influence of Cytoskeleton Modulating Agents," Biochim. Biophys. Acta, 1362:128-134 (1997).  |

EXAMINER

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DATE CONSIDERED

1-6-03

U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No. 28110/36120B

Serial No. 09/905,732

INFORMATION DISCLOSURE STATEMENT

O | P(se several sheets if necessary)

Applicant Chadwick, B. et al.

Filing Date July 13, 2001 Group 1644

| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) |      |   |  |  |  |
|--|------|---|--|--|--|
| AQ.  | C90  | Smith, R.D. et al., "New Developments in Biochemical Mass Spectrometry: Electrospray Ionization," Anal. Chem., 62:882-899 (1990).   |  |  |  |
|  | C91  | Somers, G.R. et al., "Expression of the P2Y6 Purinergic Receptor in Human T Cells Infiltrating Inflammatory Bowel Disease," Lab. Invest., 78:1375-1383 (1998).  |  |  |  |
|  | C92  | Sternberger, L.A. et al., "The Unlabeled Antibody Enzyme Method of immunohistochemistry - Preparation and Properties of Soluble Antigen-Antibody Complex (Horseradish Peroxidase-Antihoreseradish Peroxidase) and Its Use in Identification of Spriochetes," J. Histochem. Cytochem., 18: 315-333 (1970). |  |  |  |
|  | C93  | Stevanović, M. et al., "Variant chromosomal arrangement of adult 8-globin genes in rat Gene, 79:139-150 (1989).   |  |  |  |
|  | C94  | Strezoska, Z. et al., "DNA Sequencing by Hybridization: 100 Bases Read by a Non-Gel-Based Method," Proc. Natl. Acad. Sci., USA, 88:10089-10093 (1991).  |  |  |  |
|  | C95  | Van Ness, J. et al., "A Versatile Solid Support System for Oligodeoxynucleotide<br>Probe-Based Hybridization Assays," <i>Nucleic Acids Res.</i> , (ENGLAND)19:3345-3350 (1991).   |  |  |  |
|  | C96  | Verma, I.M., "Gene Therapy - Treatment of Disease by Introducing Healthy Genes into the Body is Becoming Feasible. But the Therapy will not Reach its Full Potential until the Genes Can Be Coaxed to Work throughout Life," <i>Scientific American</i> , pp. 68-72, 81-84 (1990).                        |  |  |  |
|  | C97  | Vollrath, D. et al., "The Human Y Chromosome: A 43-Interval Map Based on Naturally Occurring Deletions," Science, 258:52-59 (1992).   |  |  |  |
|  | C98  | Wallace, R.B. et al., "Hybridization of Synthetic Oligodeoxyribonucleotides to $\Phi \chi$ 174 DNA: The Effect of Single Base Pair Mismatch," Nucleic Acids Research, 6:3543-3557 (1979).   |  |  |  |
|  | C99  | Walsh P.S. et al., "Preferential PCR Amplification of Alleles: Mechanisms and Solutions," PCR Methods Appl, 1:241-250 (1992).   |  |  |  |
|  | C100 | Wang, T-F. et al., "CD39 Is an Ecto-(Ca <sup>2+</sup> , Mg <sup>2+</sup> )-apyrase," J. Biol. Chem., 271(17):9898-9901 (1996).  |  |  |  |
|  | C101 | Wang T-F. et al., "Characterization of Brain Ecto-Apyrase: Evidence for Only One Ecto-Apyrase (CD39) Gene," Molecular Brain Research, 47:295-302 (1997).  |  |  |  |

| EXAMINER | $(\Lambda \Lambda \Lambda$ | $\mathcal{N}_{i}$ |
|----------|----------------------------|-------------------|
|          |                            |                   |

DATE CONSIDERED 1-6-03

U.S. Department of Commerce Patent and Trademark Office Atty. Docket No. 28110/36120B

Serial No. 09/905,732

INFORMATION DISCLOSURE STATEMENT

se several sheets if necessary)

Applicant Chadwick, B. et al.

Filing Date
July 13, 2001

Group 1644

|     |      | * 407 · E  |
|-----|------|--|
|     | 3400 | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)   |
| AD. | C102 | Wang, T-F. et al., "Widespread Expression of Ecto-Apyrase (CD39) in the Central Nervous System," Brain Research, 790:318-322 (1998).   |
|     | C103 | Wang T-F et al., "The Transmembrane Domains of Ectoapyrase (CD39) Affect Its Enzymatic Activity and Quarternary Structure," J. Biol. Chem., 273:24814-24821 (1998).  |
|     | C104 | Wells, J.A. et al., "Cassette Mutagenesis: An Efficient Method for Generation of Multiple Mutations at Defined Sites," Gene, 34:315-323 (1985).  |
|     | C105 | Wolter, A. et al., "Negative Ion FAB Mass Spectrometric Analysis of Non-Charged Key Intermediates in Oligonucleotide Synthesis: Rapid Identification of Partially Protected Dinucleoside Monophates," Biomedical Environ. Mass Spec., 14:111-116 (1987). |
|     | C106 | Xu, L. et al., "Ketone Electrophores and an Olefin-Release Group Electrophore-<br>Labeled DNA Oligomer Detection via Electron Capture," <i>Chromatography</i> , 764:95-102 (1997).   |
|     | C107 | Yamashita, M. et al., "Electrospray Ion Source. Another Variation on the Free-Jet Theme," J. Phys. Chem., 88:4451-4459 (1984).   |
|     | C108 | Zoller, M.J. et al., "Oligonucleotide-Directed Mutagenesis Using M13-Derived Vectors: An Efficient and General Procedure for the Production of Point Mutations in any Fragment of DNA, Nucleic Acids Res., 10:6487-6500 (1982).                          |
|     | C109 | Fingl et al., "General Principles," In: <i>The Pharmacological Basis of Therapeutics</i> , Chapter 1, pgs. 1-46 (1975).  |
|     | C110 | Geiger et al., "Ligand specificity and ticlopidine effects distinguish three human platelet ADP receptors," <i>European Journal Pharmacology</i> , 351:235-246 (1998).   |
|     | C111 | Hechler et al., "ATP Derivatives Are Antagonists of the P2Y1 Receptor: Similarities to the Platelet ADP Receptor," <i>American Pharmacology</i> , 53:727-733 (1998).   |
|     | C112 | Ingall et al., "Antagonists of the Platelet P <sub>2T</sub> Receptor: A Novel Approach to Antithrombotic Therapy," J. Med. Chem., 42:213-220 (1999).   |
|     | C113 | Jantzen et al., "Evidence for Two Distinct G-protein-coupled ADP Receptors Mediating Platelet Activation," <i>Thromb. Haemost.</i> , 81:111-117 (1999).  |
|     | C114 | Myers et al., "Automated Double-Label: In Situ Hybridization and   |

| EXAMINER | 21 | 12 elle |
|----------|----|---------|
|          |    |         |

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Immunohistochemistry," J. Surg Path., 1:191-203 (1995)

U.S. Department of Commerce Patent and Trademark Office Atty. Docket No. 28110/36120B

July 13, 2001

Serial No. 09/905,732

Applicant

Chadwick, B. et al.

Filing Date

Group 1644

several sheets if necessary)

INFORMATION DISCLOSURE STATEMENT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) Vigne et al., "Benzoyl ATP Is an Antagonist of Rat and Human P2Y1 Receptors and of C115 Platelet Aggregation," Biochem. Biophys. Res. Commun., 256:94-97 (1999). Boukerche, H. et al., "Human melanoma cell lines differ in their capactiy to release C116 ADP and aggregate platelets," Br. J. Haematol., 87(4):763-72 (1994). Dzhaudzhugazyan, K.N. et al., "Ecto-ATP diphosphohydrolase/CD39 is overexpressed C117 in differentiated human melanomas," FEBS Lett., 430(3):227-30 (1998). Clifford, E.E. et al., "Stage-specific expression of P2Y receptors ecto-apyrase, and C118 ecto-5'- nucteotidase in myeloid leukocytes," Am. J. Physiol., 273(3 Pt. 1):C973-87 (1997).Katzur, A.C., et al., "Expression and responsiveness of P2Y2 receptors in human C119 endometrial cancer cell lines, "J. Clin. Endocrinol. Metab., 84(11):4085-91 (1999). Correale, P., et al., "Extracellular adenosine 5' triphosphate involvement in the death C120 of LAK-engaged human tumor cells via P2X-receptor activation, "Immunol. Lett., 55(2): 69-78 (1997). Barnard. E.A., et al., "Nucleotide receptors in the nervous system. An abundant C121 component using diverse transduction mechanisms," Mol. Neurobiol. 15(2):103-29 (1997).Abbracchio, M.P. and Burnstock G., "Purinoreceptors: Are there families of P2X and C122 P2Y Purinoreceptors?," Pharmac. Ther., 64:445-75 (1994). Illes, P. et al., "Electrophysiological effects of ATP on brain neurones," J. Auton. C123 Pharmacol., 16(6):407-11 (1996). Bernard, E.A., et al., "The diverse series of recombinant P2Y purinoreceptors," Ciba C124 Found. Symp., 198: 166-88 (1996). Williams, M. and Jarvis, M.F., "Purinergenic and pyrimidinergenic receptors as C125 potential drug targets," Biochem. Pharmacol., 59(10):1173-85 (2000). King, B.F. et al., "Metabotropic receptors for ATP and UTP: exploring the C126 correspondence between native and recombinant nucleotide receptors," Trends Pharmacol. Sci., 19(12):506-14 (1998). Nicholas, R.A., et al., "Pharmacological and second messenger signaling selectivities C127 of cloned P2Y receptors," J. Auton. Pharmacol., 16(6):319-23 (1996).

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U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No. 28110/36120B

Serial No. 09/905,732

Applicant

Chadwick, B. et al.

Filing Date
July 13, 2001

Group 1644

Osseveral sheets if necessary)

INFORMATION DISCLOSURE STATEMENT

|    | Baneman | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)   |
|----|---------|--|
| An | C128    | Moore, D., et al. "Regional and cellular distribution of the P2Y(1) purinergenic receptor in the human brain: striking neuronal localisation," J. Comp. Neurol., 421(3):374-84 (2000). |
|    | C129    | Sneddon. D., et al., "Modulation of purinergenic neurotransmission." Prog. Brain. Res., 120:11-20 (1999).  |
|    | C130    | Enjyoji, et al., "Targeted disruption of cd39 (ATP diphosphohydrolase results in disordered homeostasis and thromboregulation," Nature Medicine 5(9): 1010-1017 (1999).                |

**EXAMINER** 

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DATE CONSIDERED

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